

IN THE SPECIFICATION:

Amend pages 9, 12 and 17 in the specified paragraphs of those pages as indicated in the attached replacement paragraphs.

Amend Page 9 in the paragraph beginning at line 16 and extending to page 10, line 2 as follows:

The present invention provides an apparatus and method for aligning dies and a punch that passes through the dies to form holes in a substrate arranged between the dies. Fig. 2 illustrates an example of an embodiment of a punch assembly according to the present invention. The embodiment illustrated in Fig. 2 includes punch 27. Punch 27 includes punch stem 36 and punch tip 24. Compression spring 37 biases the punch 27 in a retracted position. As illustrated spring 37 engages extension 53 of punch 27 and housing 32. The elements including the punch, the compression spring, and other components added to the punch may be referred to and assembled into punch assembly 38.

Page 12 before line 1 add the following paragraph

As illustrated in Figure 2, the die passages 35 and 34 are smooth bore passages. As a result rotation of the dies 25,26 would not necessarily result in any vertical movement of the dies in their die passages.

Page 12 amend the paragraph beginning at line 1 as follows:

The present invention includes lower die 26. The lower die may have a substantially similar shape as the upper die. Therefore, the above discussion regarding the shape and configuration of the upper die is referred to and applies here with respect to the lower die as well. For example, the lower die may have a substantially inverted U-shape, as illustrated in Fig. 2. The edge 46 of the lower die may also be beveled. One difference between the upper die and the lower die is that lower die 26 may include a cutting surface [[48]] around the perimeter of the punch receiving passage. The cutting surface [[48]] helps to facilitate the formation of holes in a substrate arranged between upper die and lower die.

Page 12 in the paragraph beginning at line 15 and extending to page 13, line 3 amend the paragraph as follows:

By permitting rotation of at least one of the upper die and the lower die relative to the other, the present invention may permit the upper die aperture and the lower die aperture to be arranged relative to each other as optimally close as concentricity permitted by the dies and the upper housing and the lower housing. The present invention may permit the upper die aperture and the lower die aperture to be aligned so as to be concentric with in about 5 millionths of an inch. However, any necessary ~~alignment~~ alignment may be created with the present invention. According to a typical embodiment, the best possible or optimal alignment is created with the present invention.

Page 17 after line 12 add the following paragraph:

As indicated in the prior description and drawings, the invention may be practiced for providing the best possible or optimum match and alignment of the upper and lower apertures from a selection of dies. This is done in view of the realization that in manufacturing processes where there are tolerances, precise alignment would not likely result. In the selection and aligning procedure of the invention an upper die 25, for example, located in the upper die receiving passage 35 of upper housing 32 might extend partially into lower die receiving passage 34 in lower housing 33. Punch tip 24 would be inserted through upper die aperture 40 and advance into the lower die receiving passage or aperture 50. During this process one or both dies would be rotated to select the optimum alignment for permitting punch tip 24 to pass through the dies with the least amount of frictional or interference forces from the walls of the punch receiving apertures 40,50. When this optimum alignment is achieved the relative position of dies 25,26 is recorded by providing at least one mark on first die 25 and on second die 26. This enables the optimal positioning to be recreated. The punch and both dies would be mounted in the punch and die assembly and assume the normal operating position as in a known assembly which would be similar to what is illustrated in Figure 1. Because of the tight clearance or snug fitting of each

die in its passage (e.g., about 0 to about 10 millionths of an inch) each die remains in whatever position to which it had been rotated. In that regard, because of the tight clearance or snug fitting, relative rotation of one die with respect to the other could also be achieved by rotating a die housing 32 or 33 rather than the die and each die would, of course, maintain its orientation in its passage. Any suitable means may be used for rotating the dies and/or housings since the specific structure for such rotation is not critical to the invention. Figure 2 schematically illustrates structure 55 for rotating the dies and illustrates structure 56 for rotating the housings.

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